

c.) Amendments to the Claims.

Please amend claims 1, 13, 41 and 42 as follows:

Claim 1. (currently amended) A method for the typing or enumeration of bacteria comprising:

~~immobilizing a providing an immobilized~~ capture antibody specific to one or more types of bacteria on a solid support;

contacting a said immobilized capture antibody with a sample containing said one or more types of bacteria;

contacting the contents of said sample with a predetermined amount of substrate for the one or more types of bacteria, wherein metabolism of said substrate by the one or more types of bacteria produces a marker;

digesting the one or more types of bacteria to release said marker;

adding a primary antibody, which is specific to said marker, to the digested bacteria and thereby contact released marker;

adding a second antibody, which is specific for said primary antibody and conjugated to a reporter molecule, to the digested bacteria and thereby contact primary antibody;

detecting the reporter molecule conjugated to the second antibody, which has contacted primary antibody; and

determining the type or quantity of the one or more types of bacteria present in the sample from reporter molecule detected.

Claim 2. (previously amended) The method of claim 1, wherein the digestion of said one or more types of bacteria comprises cell lysis.

Claim 3. (previously amended) The method of claim 1, which is capable of detecting 1000 colony forming units per ml or less of said one or more types of bacteria.

Claim 4. (previously amended) The method of claim 1, which is capable of detecting 100 colony forming units per ml or less of said one or more types of bacteria.

Claim 5. (previously amended) The method of claim 1, wherein the sensitivity of said method is capable of detecting 10 colony forming units per ml or less of said one or more types of bacteria.

Claim 6. (previously amended) The method of claim 1, wherein the type or enumeration of said one or more types of bacteria is determined in less than two hours.

Claim 7. (previously amended) The method of claim 1, wherein the type or enumeration of said one or more types of bacteria is determined in less than one hour.

Claim 8. (original) The method of claim 1, wherein the reporter molecule is selected from the group consisting of: a bioluminescent protein, a chemiluminescent dye, a fluorescent dye, an enzyme, a latex particle, a magnetic particle, a radioisotope, a visible dye, and combinations thereof.

Claim 9. (original) The method of claim 1, wherein the substrate is dimethylthiazolyldiphenyl tetrazolium, iodonitrotetrazolium, nitrotetrazolium blue, or triphenyltetrazolium.

Claim 10. (previously amended) The method of claim 1, wherein the one or more types of bacteria comprises one or more species of bacteria.

Claim 11. (original) The method of claim 1, wherein the sample is selected from the group consisting of a bodily fluid, a blood sample, a clinical sample, a cosmetic sample, an environmental sample, a food sample, an industrial sample, pharmaceutical sample, a tissue sample, a tissue homogenate, and combinations thereof.

Claim 12. (previously amended) The method of claim 1, wherein the one or more types of

bacteria are digested prior to their contact with said capture antibody.

Claim 13. (currently amended) A method for the typing or enumeration of bacteria in a sample comprising:

contacting the contents of said sample with a predetermined amount of a substrate for one or more types of bacteria suspected of being contained within said sample, wherein metabolism of said substrate by the one or more types of bacteria produces a marker;

digesting the one or more types of bacteria to release said marker;

adding a primary antibody, which is specific to said marker, to the digested bacteria and thereby contact released marker;

detecting said primary antibody bound to said marker; and

determining the type or quantity of said one or more types of bacteria present in said sample from the bound primary antibody detected.

Claim 14. (previously amended) The method of claim 13, wherein the digestion of said one or more types of bacteria comprises cell lysis.

Claim 15. (previously amended) The method of claim 13, which is capable of detecting 1000 colony forming units or less of said one or more types of bacteria.

Claim 16. (previously amended) The method of claim 13, which is capable of detecting 100 colony forming units or less of said one or more types of bacteria.

Claim 17. (previously amended) The method of claim 13, wherein the sensitivity of said method is capable of detecting 10 colony forming units or less of said one or more types of bacteria.

Claim 18. (previously amended) The method of claim 13, wherein the type or enumeration of said one or more type of bacteria is determined in less than two hours.

Claim 19. (previously amended) The method of claim 13, wherein the type or enumeration of said one or more types of bacteria is determined in less than one hour.

Claim 20. (original) The method of claim 13, wherein the substrate is dimethylthiazolyldiphenyl tetrazolium, iodonitrotetrazolium, nitrotetrazolium blue, or triphenyltetrazolium.

Claim 21. (previously amended) The method of claim 13, wherein the one or more types of bacteria comprises one or more species of bacteria.

Claim 22. (original) The method of claim 13, wherein the sample is selected from the group consisting of a bodily fluid, a blood sample, a clinical sample, a cosmetic sample, an environmental sample, a food sample, an industrial sample, pharmaceutical sample, a tissue sample, a tissue homogenate, and combinations thereof.

Claim 23. (previously amended) The method of claim 36, wherein the one or more types of bacteria are digested prior to contact with the capture antibody.

Claim 24. (original) The method of claim 13, wherein the primary antibody is conjugated to a reporter molecule.

Claim 25. (original) The method of claim 24, wherein the reporter molecule is selected from the group consisting of: a bioluminescent protein, a chemiluminescent dye, a fluorescent dye, an enzyme, a latex particle, a magnetic particle, a radioisotope, a visible dye, and combinations thereof.

Claim 26. (previously amended) A kit for the detection or enumeration of one or more types of bacteria comprising:

a soluble substrate, which upon uptake by one or more types of actively respiring bacteria, is metabolized to a water-insoluble molecule;
a primary antibody specific for said water-insoluble molecule; and
a detectable reporter molecule.

Claim 27. (previously amended) The kit of claim 26, further comprising a solid support supplied with capture antibodies that are specific to said one or more types of bacteria and immobilized to said solid support.

Claim 28. (original) The kit of claim 26, further comprising a wash buffer, a dilution buffer, and a digestion reagent.

Claim 29. (original) The kit of claim 26, wherein the detectable reporter molecule is selected from the group consisting of a bioluminescent protein, a chemiluminescent dye, a fluorescent dye, an enzyme, a latex particle, a magnetic particle, a radioisotope, a visible dye, and combinations thereof.

Claim 30. (original) The kit of claim 26, wherein said detectable reporter molecule comprises an enzyme.

Claim 31. (original) The kit of claim 26, further comprising a nutrient media.

Claim 32. (original) The kit of claim 31 wherein the nutrient media comprises a reducing sugar and a mild oxidizing agent

Claim 33. (previously amended) The kit of claim 32 wherein the mild oxidizing agent is nicotinamide adenine dinucleotide and the reducing sugar is glucose.

Claim 34. (previously amended) A kit for the detection or enumeration of bacteria

comprising:

a solid support;

capture antibodies that are specific to one or more types of bacteria and affixed to said solid support;

a soluble substrate to said one or more types of bacteria, which upon uptake by actively respiring said one or more types of bacteria, is metabolized to a water-insoluble molecule; and a primary antibody specific for said water-insoluble molecule.

Claim 35. (original) The kit of claim 34, wherein the primary antibody is conjugated to a reporter molecule.

Claim 36. (previously added) The method of claim 13, further comprising immobilizing a capture antibody specific to said one or more bacteria on a solid support and contacting a said immobilized capture antibody with said sample.

Claim 37. (previously added) The method of claim 13, further comprising contacting the primary antibody bound to marker with a secondary antibody, wherein said secondary antibody is specific for said primary antibody and conjugated with a detectable reporter molecule.

Claim 38. (previously added) The method of claim 1, which determines the type or quantity of one type of bacteria.

Claim 39. (previously added) The method of claim 13, which determines the type or quantity of one type of bacteria.

Claim 40. (previously added) The kit of claim 26, wherein the detectable reporter molecule is conjugated to said primary antibody.

Claim 41. (currently amended) The kit of claim 26, further comprising ~~contacting the~~

~~primary antibody bound to marker with~~ a secondary antibody, wherein said secondary antibody is specific for said primary antibody and conjugated with said detectable reporter molecule.

Claim 42. (currently amended) The kit of claim 34, further comprising ~~contacting the primary antibody bound to water insoluble molecule with~~ a secondary antibody, wherein said secondary antibody is specific for said primary antibody and conjugated with said detectable reporter molecule.

Claim 43. (previously added) The kit of claim 26, which determines the type or quantity of one type of bacteria.

Claim 44. (previously added) The kit of claim 34, which determines the type or quantity of one type of bacteria.